Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

are essential to ensure that the vaccine roll-out meets stated standards and maintains equity in vaccine access and vaccine confidence.

Similarly, in early April, 2020, US journalists, advocates, and scientists raised alarm at gross gaps in data for race and ethnicity for COVID-19 cases and deaths, impeding the ability to document health inequities and guide interventions.[3] Although the proportion of records for COVID-19 deaths that are missing racial and ethnic data is now low (<1%), the proportion of records of cases that are missing these data has not decreased: despite reporting mandates, these data were missing for 43·00% (181 484 of 422 057) of COVID-19 cases that were reported between Aug 28 and Sept 16, 2020,[4] and for 33·00% (4 083 477 of 12 374 172) of COVID-19 cases that were reported between Dec 2, 2020, and Feb 3, 2021.

Journalists, advocates, and scientists are again decrying the extensive missing data for race and ethnicity for vaccination records; meanwhile large numbers of affluent white people with good computer access to book appointments are attending vaccination sites that were set up to serve communities of colour that were hard hit by COVID-19.[5]

At a time of heightened awareness about racial injustice and white supremacy, it is astonishing that racial and ethnic data for vaccination are missing. The first month of vaccination occurred in the final month of the Trump administration. To get out of this pernicious time loop, self-reflection, learning from past errors, and a commitment to equity are essential. The new Biden–Harris administration should ensure that these required data are reported.

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The medical right to repair: the right to save lives

Throughout the COVID-19 pandemic, hospitals worldwide have reported inadequate supplies of crucial equipment[1] such as ventilators, haemodialysis machines, personal protective equipment, and decontamination equipment. Having functional crucial equipment is essential for hospitals to meet patient care needs, especially now, when there is a demand for nearly every ventilator to be called into near constant service in COVID-19 hotspots worldwide.

With high-use demands brought on by COVID-19, even for newer equipment, repair and maintenance issues arise from high use related to patient volume, acuity, and turnover. COVID-19 has forced hospitals to use ventilators that have been in storage for many years,[2] including some that were previously decommissioned.

COVID-19 emphasises the long-standing refusal by manufacturers to provide information for repairing medical equipment.[3] For years, manufacturers have curtailed the ability of hospitals to independently repair and maintain medical equipment by preventing access to the necessary knowledge, software, tools, and parts.[3]

A solution exists—one that exists in other sectors of our economy. The right to repair is the right of consumers to repair and modify their own consumer electronic devices, such as mobile phones and automobiles. The European Commission announced plans in March, 2020, for new rules for the right to repair that would cover mobile phones, tablets, and laptops by 2021.[4] In the USA, Massachusetts state passed the country's first Motor Vehicle Owners' Right to Repair Act in 2012,[5] requiring automobile manufacturers to provide the necessary information for anyone to repair their vehicles.

There is an opportunity now for the medical community to ensure that the medical field benefits from access rights to open data that are similar to the rights for consumer electronics and automobiles. In August, 2020, Senator Ron Wyden of Oregon introduced the Critical Medical Infrastructure Right-to-Repair Act of 2020,[6] removing barriers to fixing medical equipment during the COVID-19 pandemic that were imposed by manufacturers. This bill requires that manufacturers provide, on fair and reasonable terms, access to information and tools that can be used to diagnose, maintain, or repair medical equipment. The law also allows owners, lessees, and services for medical equipment to repair or maintain crucial medical infrastructure in response to COVID-19.

During these extraordinary times, such legislation for the right to repair not only moves the medical field in a more affordable, efficient, and sustainable direction but also enables life-saving services to continue to be available at times of high stress.

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Malnutrition risk in hospitalised COVID-19 patients receiving CPAP

Continuous positive airway pressure (CPAP) that is delivered by face mask or hood is increasingly used in patients with COVID-19 who have been admitted to hospital, often on general or respiratory wards. Oral intake of food and drink in patients with COVID-19 might have been and will often continue to be poor due to disease-associated anorexia, nausea, and impairment of taste. Full-face or hood CPAP also makes it impossible to eat and drink without mask removal,[1] which can be associated with decreased arterial oxygen saturation. Staff might also fear that the use of nasogastric feeding can cause mask air leaks or promote gastric distension and aspiration due to aerophagia.

Such issues are in fact readily managed, and the British Association for Parenteral and Enteral Nutrition has produced practical guidelines.[2] However, NHS England and NHS Improvement[3] advocate opioid administration when CPAP is used to reduce the sensation of breathlessness and high tidal volumes,an intervention that can impair gut motility.

We received reports of three patients with COVID-19 who were treated with CPAP and developed starvation ketosis and other patients who have gone for extended periods (up to 25 days) without substantial oral intake or initiation of nutritional support. The negative effects of malnutrition can be worsened by the process of muscle wasting, which is common in patients with COVID-19 who are admitted to hospital, and by subsequent admission to an intensive care unit for mechanical ventilation, where gut function might be impaired (eg, by use of opioid analgosedation), as dietitians have reported to the Critical Care Specialist Group of the British Dietetic Association.

We were also made aware of the use of 0·9% saline in some healthcare centres as the routine (and sole) intravenous crystalloid. Such practice does not comply with the National Institute for Health and Care Excellence clinical guideline 174: although 0·9% saline can be used for replacement of gastrointestinal losses or as a bolus for acute resuscitation, its use is not recommended in terms of routine maintenance.[4] Use as routine maintenance can increase sodium and chloride load in the body, potentially leading to bowel oedema and further impairment of gastrointestinal function.[5]

We recommend that healthcare professionals with expertise in nutrition, especially dietitians, nutrition nurses, physicians, and pharmacists, should be engaged in the assessment and care of all patients with COVID-19 who receive CPAP and patients who are subsequently admitted to intensive care units for mechanical ventilation. Appropriate nutritional support—including the introduction of parenteral nutrition, if necessary—improves outcomes in analogous cases.[6]

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Free licensing of vaccines to end the COVID-19 crisis

The pace of COVID-19 vaccine development, authorisation, and production is unprecedented. Yet all three approved vaccines by Pfizer–BioNTech, Moderna, and AstraZeneca

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